

TSCA CBI STATUS: NONE

## TSCA HEALTH &amp; SAFETY STUDY COVER SHEET

CONTAIN NO CBI

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## 1.0 SUBMISSION TYPE

☐ 8(d) ☒ XX 8(e) ☐ FYI ☐ 4 ☐ OTHER: Specify \_\_\_\_\_XX- Initial Submission - Follow-up Submission ☐ Final Report Submission

Previous EPA Submission Number or Title if update or follow-up: \_\_\_\_\_

Docket Number, if any: #

☐ continuation sheet attached

BEHQ-1105-16286

RECEIVED  
OPPT/CBI  
05 NOV 21 AM 10:54

## 2.1 SUMMARY/ABSTRACT ATTACHED

(may be required for 8(e): optional for §4, 8(d) &amp; FYI)

X- YES

☐ NO2.2 SUBMITTER TRACKING  
NUMBER OR INTERNAL ID

7004 2510 0002 4033 8537

05-2-22

## 2.3 FOR EPA USE ONLY

## 3.0 CHEMICAL/TEST SUBSTANCE IDENTITY

CAS#: 75-44-5

Reported Chemical Name (specify nomenclature if other than CAS name):  
Carbonyl Chloride

Purity \_\_\_\_%

X- Single Ingredient

☐ Commercial/Tech Grade☐ Mixture

Trade Name Phosgene

Common Name: Carbonyl Chloride

CAS Number

NAME

% WEIGHT

Other chemical(s) present  
in tested mixture☐ continuation sheet attached

## 4.0 REPORT/STUDY TITLE

Acute head-only exposure of dogs to phosphene. Part III: Comparison of indicators of lung injury in  
dogs and rats. Study No.: MS05-954☐ continuation sheet attached

## 5.1 STUDY/TSCATS INDEXING TERMS

[CHECK ONE]

HEALTH EFFECTS (HE): ☒ ENVIRONMENTAL EFFECTS (EE): \_\_\_\_\_ ENVIRONMENTAL FATE (EF): \_\_\_\_\_

## 5.2 STUDY/TSCATS INDEXING TERMS (see instructions for 4 digit codes)

STUDY

SUBJECT

ROUTE OF

VEHICLE OF

TYPE: ATOX

ORGANISM (HE, EE): DOGS, RATS

EXPOSURE (HE only): \_\_\_\_\_

EXPOSURE (HE only): \_\_\_\_\_

Other: \_\_\_\_\_

Other: \_\_\_\_\_

Other: \_\_\_\_\_

Other: \_\_\_\_\_

## 6.0 REPORT/STUDY INFORMATION

☐ Study is GLPLaboratory Bayer HealthCare, 42096 Wuppertal, Germany Report/Study Date: 10/20/05Source of Data/Study Sponsor (if different than submitter) Bayer Toxicology☐ continuation sheet attached

## 7.0 SUBMITTER INFORMATION

Janet M. Mostowy, Ph.D.

Head of Product Safety &amp; Regulatory Affairs

Bayer Material Science Corporation - 100 Bayer Road, Pittsburgh, PA. 15205

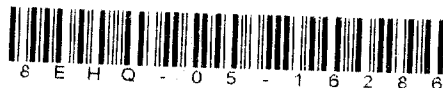
Phone: 412-777-3490

Technical Contact: SAME AS ABOVE☐ continuation sheet attached

Phone: ( ) \_\_\_\_\_

## 8.0 ADDITIONAL/OPTIONAL STUDY COMMENTS

This compound is an intermediate/reactant for isocyanate production.

☐ continuation sheet attached

Submitter Signature: \_\_\_\_\_

Date: 11/16/05

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290484

## 9.0 CONTINUATION SHEET

Submitter Tracking Number/Internal ID

7004 2510 0002 4033 8537

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### Continuation of 2.1

Reporting was based on the following results:

Male and female dogs were exposed to 9, 16.5 or 35 mg/m<sup>3</sup> for 30 minutes resulting in C x T products of 270, 495 and 1050 mg/m<sup>3</sup>-min. All dogs were sacrificed 24 hours post-exposure. Endpoints included clinical signs, lung weights, BAL fluid and cellular endpoints, arterial blood gases, and lung histopathology. No mortality was observed. Increased lung weights occurred at the highest dose. Changes in BAL parameters were observed at 495 (borderline) and 1050 mg/m<sup>3</sup>-min. Mild alteration of pO<sub>2</sub> was observed at the highest dose. Lungs appeared distended, dark red and edematous at the high dose. Histopathology revealed mild inflammatory response starting at 495 mg/m<sup>3</sup>-min, with more severe effects such as epithelial necrosis, hemorrhages and serofibrinous exudates at 1050 mg/m<sup>3</sup>-min.

This study presents data on new findings in dogs exposed to phosgene and also shows previously reported findings occurring at a lower C x T product than previously reported. The effects found at 1050 mg/m<sup>3</sup>-min such as changes in BAL parameters, and alteration in pO<sub>2</sub>, could not be found in the published literature for dogs. Furthermore, increased lung weights, and the histopathology found at the same dose are shown to occur at a lower than previously reported dose for dogs. These findings together suggest significant pulmonary effects resulting from phosgene exposure.